

25X1

Approved For Release 2008/01/29 : CIA-RDP80-00926A008900080001-0

**Page Denied**

Approved For Release 2008/01/29 : CIA-RDP80-00926A008900080001-0

25X1

~~C-O-N-F-I-D-E-N-T-I-A-L~~

SEE BOTTOM OF PAGE FOR SPECIAL CONTROLS, IF ANY

## INFORMATION REPORT

PREPARED AND DISSEMINATED BY

CENTRAL INTELLIGENCE AGENCY

This material contains information affecting the National Defense of the United States within the meaning of the Espionage Laws, Title 18, U.S.C. Secs. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

COUNTRY

USSR

SUBJECT

Physics Curriculum at Moscow University

DATE DISTRIBUTED

20 Aug 1956

NO. OF PAGES

NO. OF ENCLS.

SUPPLEMENT TO REPORT #

25X1

25X1

THIS IS UNEVALUATED INFORMATION

2.

EDUCATIONAL PLAN

25X1

SPECIALTY: PHYSICS

Subject	Semesters	Total Hours
1. Bases of Marxism-Leninism	1st-4th	224
2. Political Economy	5th-8th	140
3. Dialectic and Historical Materialism	7th-9th	140
4. History of Physics	9th	52
5. Foreign Language	1st-4th	270
6. Chemistry	1st-2nd	102
7. Mechanical Drawing	1st-2nd	68
8. Training Shops	1st-2nd	68
9. Higher Mathematics	1st-4th	616
10. Methods of Mathematical Physics	5th-6th	256
11. Mathematical Practise	5th-6th	34
12. General Physics	1st-4th	372
13. Atomic Physics	5th-6th	86
14. Nuclear Physics	6th-7th	102
15. Theoretical Mechanics and Mechanics of Solid Media	4th-5th	154
16. Thermodynamics and Statistical Physics	6th-7th	104
17. Electrodynamics	5th-6th	136
18. Quantum Mechanics	7th-8th	124
19. Bases of Radio-technology	5th	54
20. Practical Work in General Physics	1st-4th	374
21. Practical Work in Atomic Physics, Nuclear Physics, Radio-technology and Specialization	5th-8th	483
22. Special Courses and Special Seminars	6th-10th	424

∞

~~C-O-N-F-I-D-E-N-T-I-A-L~~

DISTRIBUTION

STATE	ARMY	NAVY	AIR	FBI					
-------	------	------	-----	-----	--	--	--	--	--

NOFORN

NO DISSEM ABROAD

LIMITED

LIMITED: Dissemination limited to full-time employees of CIA, AEC and FBI; and, within State and Defense, to the intelligence components, other offices producing NIS elements, and higher echelons with their immediate supporting staffs. Not to be disseminated to consultants, external projects or reserve personnel on short term active duty (excepting individuals who are normally full-time employees of CIA, AEC, FBI, State or Defense) unless the written permission of the originating office has been obtained through the Assistant Director for Collection and Dissemination, CIA.

-2-

25X1

Subject	Semesters	Total Hours
23. Laboratory in Field of Specialization 7th-9th		625
24. Physical Education and Sport	1st-4th	136
5144		

Notes:

1. Content of special courses is determined in conjunction with the following specializations of the faculty: theoretical and mathematical physics, nuclear physics, molecular physics, optics and spectroscopy, physics of a solid body, physics of low temperature, radio physics, geophysics.
2. Productive (or industrial) work /8 weeks/ is carried out between 4th and 5th years. In connection with this, educational studies and examinations for the 8th semester end three weeks earlier; studies for the 5th year begin 6 October.

-----

5. Studies in educational shops, in general, atomic, nuclear, radio-technical, and special physics practical work, in mathematical practical work, and in laboratories of specialization are conducted in groups numbering no more than six students per one instructor. 25X1

3.

Recommended Reading for the Students

of the Physics Faculty of MGU

Moscow State University

1. General Physics  
SE Frish and AV Timoreva.  
Kurs obshhei fiziki (Course in General Physics).  
ND Papaleksi. Kurs fiziki (Course in Physics).  
GS Landeberg. Optika (Optics).  
Mlodzeevskiy. Molekulyarnaya fisika (Molecular Physics).  
AE Tudorovskiy. Elektrichestvo (Electricity).
2. Theoretical Mechanics, Mechanics of Solid Media.  
AI Nekrasov. Kurs teoreticheskoy mekhaniki (Course in Theoretical Mechanics).  
NN Bukhgolts. Osnovnoi kurs teoreticheskoy mekhaniki (Basic Course in Theoretical Mechanics).  
NE Zhukovskiy. Teoreticheskaya mekhanika (Theoretical Mechanics).  
E Uitteker. Analiticheskaya dinamika (Analytical Dynamics).  
A Sommerfeld. Mekhanika (Mechanics).  
YaI Frankel. Kurs teoreticheskoy mekhaniki (Course in Theoretical Mechanics).  
LD Landau, EM Lifshits. Mekhanika sploshnykh sred (Mechanics of Solid Media).  
A Sommerfeld. Mekhanika deformiruemymkh sred (Mechanics of Elastic Media).  
L Prandtl. Gidroaeromekhanika (Hydro-Air-Mechanics).  
NE Zhukovskiy. Lektsii po gidromekhanike (Lectures on Hydromechanics).

3. Electrodynamics

- IE Tamm. Osnovi teorii elektrichestva (Bases of the Theory of Electricity).  
Abraham-Vekker. Teoriya elektrichestva (Theory of Electricity).  
LD Landau and EM Lifshits. Teoriya polya (Theory of Field).  
R Bekker ~~Baker~~. Elektronnaya teoriya (Electronics Theory).  
V Smayt ~~Smythe~~. Elektrostatika i elektrodinamika (Electrostatics and Electrodynamics).

C=O=N=F=I=D=E=N=T=I=A=L

NOFORN

NO DISSEM ABROAD

LIMITED

PG Bergman. Teoriya otnositelnosti (Theory of Relativity).  
 LN Mandelshtam. Lektsii po teorii otnositelnosti (Lectures on the Theory of Relativity).

#### 4. Atomic Physics

EV Shpolskiy. Atomnaya fisika (Atomic Physics).  
 NA Kaptsov. Elektronika (Electronics).  
 Garnwell Harnwell? and Livingud Livingood?. Eksperimentalnaya atomnaya fisika (Experimental Atomic Physics).  
 Semat. Vvedenie v atomnyu fisiku (Introduction to Atomic Physics).  
 G Gertsberg Hertzberg?. Atomnye spektry i stroenie atomov (Atomic Spectra and Structure of Atoms).

#### 5. Methods of Mathematical Physics

VI Smirnov. Kurs vysshey matematiki, tt 2,3,4 (Course in Higher Mathematics, vols 2,3,4).  
 NS Koshlyakov. Osnovnye differentialnye uravneniya matematicheskoy fisiki (Basic Differential Equations of Mathematical Physics).  
 SL Sobolev. Uravneniya matematicheskoy fisiki (Equations of Mathematical Physics).  
 AN Tikhonov and AA Samarskiy. Uravneniya matematicheskoy fisiki (Equations of Mathematical Physics).  
 V Smirnov, V Krylov, and L Kantorovich. Variatsionnoe ischislenie (Variational Calculus).

#### 6. Thermodynamics, Statistical Physics

MA Leontovich. Vvedenie v termodinamiku (Introduction to Thermodynamics).  
 I S Epshteyn Epstein?. Kurs termodinamiki (Course in Thermodynamics).  
 MA Leontovich. Statisticheskaya fisika (Statistical Physics).  
 Planck. Termodinamika (Thermodynamics).  
 Gibbs. Osnovnye printsipy statisticheskoy fisiki (Basic Principles of Statistical Physics).  
 Landau and Lifshits. Statisticheskaya fisika (Statistical Physics).  
 Frankel. Statisticheskaya fisika (Statistical Physics).

#### 7. Quantum Mechanics

DI Blokhintsev. Osnovi kvantovoy mekhaniki (Bases of Quantum Mechanics).  
 LD Landau and EM Lifshits. Kvantovaya mekhanika (Quantum Mechanics).  
 EV Shpolskiy. Atomnaya fisika (Atomic Physics).

#### 8. Physics Bases of Radiotechnology

NN Malov. Kurs elektrotekhniki i radiotekhniki (Course in Electrotechnology and Radiotechnology).  
 VP Aseev. Osnovy radiotekhniki (Bases of Radiotechnology).  
 NN Krylov. Teoreticheskie osnovy radiotekhniki (Theoretical Bases of Radiotechnology).  
 GS Gorelik. Kolebaniya i volny (Vibrations and Waves).

#### 9. History of Physics

VI Spasskiy. Istorija fisiki (History of Physics).  
 Sbornik: "Ocherki po istorii fisiki v Rossii." (Collection: "Essays on the History of Physics in Russia").  
 PS Kudryavtsev. Istorija fisiki (History of Physics).  
 Galileo. Dialog o dvukh glavnayshikh sistemakh mira.—Ptolomeevskoy i Kopernikovskoy (Dialogue on the Two Most Important Systems of the World—Those of Ptolemy and of Copernicus).  
 Newton. Matematicheskie nachala naturalnoy filosofii (Mathematical Origin of Natural Philosophy).  
 Newton. Optika (Optics).  
 Lomonosov. Trudy po fisike (Works on Physics).  
 La Grange. Analiticheskaya mekhanika (Analytical Mechanics).  
 Meyer. Zakon sokhraneniya i prevrashcheniya energii (Law on the Conservation and Transformation of Energy).

C-O-N-F-I-D-E-N-T-I-A-L

NOFORN

NO DISSEM ABROAD

LIMITED

C-O-N-F-I-D-E-N-T-I-A-L

-4-

25X1

Helmholtz. O sokhraneniya sily (On the Conservation of Energy).  
 Faraday. Eksperimentalnye issledovaniya po elektrichestvu (Experimental Research in Electricity).

Maxwell. Izbrannye sochineniya po teorii elektromagnitnovo polya (Selected Articles on the Theory of the Electromagnetic Field).

Stoletov. Izbrannye sochineniya (Selected Articles).

Umov. Izbrannye sochineniya (Selected Articles).

Lebedev. Izbrannye sochineniya (Selected Articles).

N Bohr. Tri stati o spektrakh i stroenii atomov (Three Articles on Spectra and Structure of Atoms).

Geisenberg, Schroedinger, Dirak.

Sovremennaya kvantovaya mekhanika (Contemporary Quantum Mechanics).

tri nobelovskikh doklada (three Nobel ?essays).

F Engels. Dialektika prirody (Dialectics of Nature).

F Engels. Anti-Dyuring (Anti-?).

VI Lenin. Materialism i empiriokrititsism (Materialism and Empirical Criticism).

25X1

-end-

C-O-N-F-I-D-E-N-T-I-A-L

NOFORN

NO DISSEM ABROAD

LIMITED

**Page Denied**

Next 5 Page(s) In Document Denied